CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Approve specifications and authorize advertisement for bids for 600-volt Underground Triplex

MEETING DATE: May 2, 2001

PREPARED BY: Electric Utility Director

RECOMMENDED ACTION: That the City Council approve the specifications and authorize advertisement for bids for the following quantities and sizes of electrical conductor for the Electric Utility Department:

24,000 feet #1/0 underground triplex
25,000 feet #350 underground triplex

BACKGROUND INFORMATION: The Electric Utility Department estimators have issued preliminary work orders that would require a total of 24,000 feet of #1/0, and 25,000 feet of #350 underground triplex to be installed at the following planned subdivisions:

Century Meadows #1, Unit 2,
Century Meadows #4, Unit 2,
Tienda Place Units A and B,
The Parisis development in Grid 58, and
The Beck/Perlegos development in Grid 58.

FUNDING: Electric Utility Department Operating Fund,
2001-2003 Financial Plan and Budget.
Estimated Cost: $65,000

BID OPENING: May 23, 2001

Alan N. Vallow, Electric Utility Director

Prepared by Joel Harris, Purchasing Officer

cc: Manager, Engineering and Operations

APPROVED: _____
H. Dixon Flynn – City Manager

City of Lodi
Equipment Specifications

600-VOLT XLPE TRIPLEX CABLE

1.0 GENERAL

Cable furnished under these specifications shall be limited to cross-linked polyethylene insulated cable rated 600 volts and suitable for installation in ducts or for direct burial in earth, in wet or dry locations, with normal conductor temperatures up to 90 degrees C. Cables furnished shall meet the requirements of the applicable NEMA, ICEA, AEIC, and ASTM standards, latest edition thereof, unless otherwise noted in this specification.

2.0 CONDUCTOR

The conductor shall be aluminum alloy, EC Grade, ½ to ¾ hard, Class B stranding.

3.0 INSULATION

Phase conductor insulation shall be single-pass, black, cross-linked polyethylene. The neutral conductor shall have yellow XLPE insulation or black XLPE insulation with yellow extruded stripes.

4.0 ASSEMBLY

The assembled cable shall consist of phase and neutral conductors twisted together with a lay not less than 50 nor more than 60 times the outside diameter of one of the phase conductors. All cable ends shall be sealed to prevent the entrance of moisture.

5.0 IDENTIFICATION

Each conductor shall have a permanent marking showing the manufacturer's name, voltage rating, conductor size and type of insulation. Additionally, one leg of the triplex shall be marked with sequential footage marks at least every two feet.

6.0 TESTING AND GUARANTEE

Testing of cable shall be performed according to procedures set forth by the ICEA, AEIC and ASTM. Certified copies of Pass/Fail test results shall be supplied to the City at the time of shipment. Any cable found defective either upon inspection, testing or installation will be returned at the manufacturer's expense.

7.0 SPECIFIC REQUIREMENTS

Any conditional bids such as "Subject to Availability in Stock" will be rejected as non-responsive.

8.0 SHIPPING

Cable ends shall be adequately sealed with a water-seal type material and plastic end caps secured to prevent the penetration of moisture. There shall be no water in the stranded conductor of the cable when reel is shipped. All shipments shall be prepaid, FOB delivered to the City of Lodi, Lodi, CA. Reels shall be shipped upright.

9.0 REELS

9.1 MAKEUP

The specified conductor shall be supplied on NEMA standard reels and in accordance with Table 1 as shown below.

TABLE 1

CONDUCTOR SIZE PHASE (NEUTRAL)	CODE WORD	MATERIAL	NEMA STANDARD REEL CODE NO.
#2 (#2) AWG	Ramapo / YES	Aluminum	3624
#1/0 (#1/0) AWG	Bergen / YES	Aluminum	3624
350kcmil (#4/0)	Wesleyan / YES	Aluminum	5432 or 7236

9.2 PACKAGING

Each reel shall have adequate protective covering across the flanges, such covering to consist of wood members from flange to flange covering the entire circumference of the reel (lagging). The lagging shall be nailed to the flange perimeters and shall be further secured with at least two steel bands around the reel. Each end of the cable shall be firmly secured to the reel.

9.3 MARKING

Each reel shall be marked with a durable label securely attached to a flange of the reel and plainly marked stating the destination, the purchaser's order number, the shipping length of cable on reel, type and size of conductors, insulation type and thickness, voltage rating and manufacturer's identification number, and tare weight of the reel.